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PARARESCUE MEDICAL KIT

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ABSTRACT

At the request of the Alaskan Air Command a medical kit for the use of their pararescue team was developed. The kit consists of a canvas container with two large compartments, one equipped with medical supplies and the other with survival items such as down-filled coat, flares, etc. Two side pockets are available to carry the URC-4 radio transceiver and battery. The kit is designed to allow the strapping on of bearpaw snowshoes for use in winter operations. Total weight of the kit is 29 pounds; with snowshoes, 35 pounds. The kit was jump tested and is now in operational use by the Alaskan Air Command pararescue team.

PUBLICATION REVIEW

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PARARESCUE MEDICAL KIT

SECTION 1. INTRODUCTION

The Arctic Aeromedical Laboratory was requested by the Alaskan Air Command to develop a medical kit for use by the individual members of their pararescue team. No adequate medical kit was available; modified one-man life raft containers had been used but these proved unsuccessful and the necessary modifications to the containers were expensive and time consuming. The need was for a standardized, compact, lightweight kit large enough to hold adequate medical supplies as well as lifesaving survival items, and designed so as not to interfere, when worn by the jumping pararescue man, with the normal opening and manipulation of the parachute assembly or with his landing. In May 1963, the AAL Protective Equipment Division was assigned the task of designing, constructing and testing such a pararescue medical kit.

SECTION 2. METHODS AND RESULTS

After consultation with the Flight Surgeon at the USAF Hospital, Eielson AFB, a list of essential medical supplies and equipment to be included in the kit was formulated. The medical supplies were limited to medications which can be administered by pararescue team members; similar considerations affected the selection of medical equipment items. This list is presented in the Appendix. (NOTE: The contents of these kits should be reviewed periodically by a Flight Surgeon to insure that the latest equipment and supplies are incorporated.)

A kit of heavy canvas was constructed with a large compartment for medical items, one for survival clothing necessary for winter operations, and two external pockets for a small radio transceiver and batteries. The main compartment will hold the essential medical supplies, including I. V. fluids, bandaging material, splints, etc. The front compartment is designed to hold the down-filled survival coat, flares, tarpaulin and other survival items needed by the pararescue men during field operations. The down-filled parka can be used for warmth in the treatment of survivors or worn by the jumper. The URC-4 radio transceiver used by the teams is readily



FIGURE 1

Pararescue medical kit attached to parachute harness by separate D-rings. Note URC-4 radio transceiver in pocket, battery and cable in similar pocket on other side. Radio is readily available for inspection as well as operational use.

accessible from the external pockets located on either side of the kit. This feature allows quick inspection or use without necessitating opening the main compartment and exposing the medical kit contents. Although the URC-4 is larger than the URC-11, it is better suited for rescue operations, having a dual channel capability. We strongly recommend that the URC-4 be retained by the Alaskan Air Command for pararescue use.

The design approach for placement of the kit on the jumping pararescue man was to locate it on the front side of the harness, just below the chest type reserve parachute. The kit is attached to the parachute assembly by two additional D-rings, tied on the main liftweb just below the permanent D-rings used for attaching the reserve chest chute (see Figure 1). Unless T.O. approval is granted, the D-rings holding the medical kit are not to be attached permanently to the parachute harness, but simply tied to the harness by the use of parachute shroud line. The kit is attached by an ejection snap assembly having quick release capability and is permanently attached to the medical kit liftweb. This arrangement affords the jumper a quick release of the entire kit in the event of an emergency landing in the water. During tests it was found that when the reserve parachute and the snaps of the medical kit were hooked to the same D-ring, they presented a definite hazard because the reserve chest chute could release on opening shock. In addition, the quick release feature of the medical kit was lost because of the close proximity of the chest parachute snaps and the quick release mechanism of the kit on the same D-ring. For these reasons, we strongly recommend the use of additional D-rings, as shown in Figure 1.

The kit can be adjusted utilizing the sliding buckle on the kit liftweb. This feature is considered essential to allow for the many and varied sizes of personnel and clothing configurations used during operational missions, summer and winter. A strap is incorporated for ease in carrying after parachute landing.

In many areas of Alaska, snowshoes are essential for anyone required to move about in the field. The medical kit is designed with straps and guides to allow bearpaw snowshoes to be attached to the front of the kit for winter operations (see Figure 2).



FIGURE 2

**Pararescue medical kit with snowshoes attached for winter operation.
Weight of kit with snowshoes is 35 pounds.**

SECTION 3. TEST DATA

The pararescue medical kit, as designed, has been jump tested with and without snowshoes attached. The weight and/or dimensions of the kit do not interfere with the jumper during actual jumping.

Weight of the kit tested 29 pounds; with snowshoes attached, 35 pounds.

No hazardous conditions or discomforts were noted by the test jumpers during flight, exit from aircraft (H-21), or during descent and landing.

There was no damage noted to fragile medical supplies utilized for each jump.

NOTE: Specifications and pattern for the pararescue medical kit are available on request.

APPENDIX*

CONTENTS OF PARARESCUE MEDICAL KIT

1. Medical Items

Wire ladder splints, padded	2 ea
Bandage, cotton, elastic	6 ea
Triangular bandage	4 ea
Bandage, gauze, roller 3 in.	2 ea
Bandage, gauze, roller 2 in.	2 ea
Bandage, gauze, roller 1 in.	2 ea
Dressing, large, Carlisle	3 ea
Dressing, small, Carlisle	2 ea
Plaster, adhesive, 3 in.	1 roll
Petrolatum gauze, tube	3 ea
Scissors, bandage	1 ea
Forceps, straight	1 ea
Tracheotomy set, sterile, field	2 ea
Airway	2 ea
Stethoscope	1 ea
Dextran unit, 500 cc	2 ea
Nylon, sterile, 4 in. by 6 yds. (salvaged chute material)	6 rolls
Surgical soap, squeeze bottle	1 btl
Bacitracin ointment	2 tubes
Bacitracin ophthalmic ointment	2 tubes
Antibiotic, wide range (terramycin)	1 pkg
APCs	1 pkg
Thermometer, oral	1 ea
Tourniquet	3 ea
Oral burn kit (FSN 6505-663-2636)	12 ea
EMT tags	1 pkg
Pencil	1 ea

2. Survival Items

Down-filled coat (D. F. Survival Assy)	1 ea
Lightweight poncho	1 ea
Flares MK-13	2 ea
Matches/waterproof container	2 ea
Snowshoes, bearpaw w/bindings	1 pr
Radio, URC-4 w/battery and cable	1 ea

3. Items carried by senior jumper, not in kit

Morphine injection - cartridge needle unit, USP 50 mg 1/4 gr, 1 cc (FSN 6505-864-7618)	20 ea
Demerol (meperidine) hydrochloride injection - cartridge needle unit, USP 50 mg 3/4 gr, 1 cc (FSN 6505-864-8094)	20 ea

*NOTE: Contents should be reviewed periodically by a Flight Surgeon to insure that the latest equipment and supplies are incorporated.